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TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 APR 04 STN AnaVist, Version 1, to be discontinued  
NEWS 3 APR 15 WPIDS, WPINDEX, and WPIX enhanced with new  
predefined hit display formats  
NEWS 4 APR 28 EMBASE Controlled Term thesaurus enhanced  
NEWS 5 APR 28 IMSRESEARCH reloaded with enhancements  
NEWS 6 MAY 30 INPAFAMDB now available on STN for patent family  
searching  
NEWS 7 MAY 30 DGENE, PCTGEN, and USGENE enhanced with new homology  
sequence search option  
NEWS 8 JUN 06 EPFULL enhanced with 260,000 English abstracts  
NEWS 9 JUN 06 KOREAPAT updated with 41,000 documents  
NEWS 10 JUN 13 USPATFULL and USPAT2 updated with 11-character  
patent numbers for U.S. applications  
NEWS 11 JUN 19 CAS REGISTRY includes selected substances from  
web-based collections  
NEWS 12 JUN 25 CA/CAPLUS and USPAT databases updated with IPC  
reclassification data  
NEWS 13 JUN 30 AEROSPACE enhanced with more than 1 million U.S.  
patent records  
NEWS 14 JUN 30 EMBASE, EMBAL, and LEMBASE updated with additional  
options to display authors and affiliated  
organizations  
NEWS 15 JUN 30 STN on the Web enhanced with new STN AnaVist  
Assistant and BLAST plug-in  
NEWS 16 JUN 30 STN AnaVist enhanced with database content from EPFULL  
NEWS 17 JUL 28 CA/CAPLUS patent coverage enhanced  
NEWS 18 JUL 28 EPFULL enhanced with additional legal status  
information from the epline Register  
NEWS 19 JUL 28 IFICDB, IFIPAT, and IFIUDB reloaded with enhancements  
NEWS 20 JUL 28 STN Viewer performance improved  
NEWS 21 AUG 01 INPADOCDB and INPAFAMDB coverage enhanced  
NEWS 22 AUG 13 CA/CAPLUS enhanced with printed Chemical Abstracts  
page images from 1967-1998  
NEWS 23 AUG 15 CAOLD to be discontinued on December 31, 2008  
NEWS 24 AUG 15 CAPLUS currency for Korean patents enhanced  
NEWS 25 AUG 25 CA/CAPLUS, CASREACT, and IFI and USPAT databases  
enhanced for more flexible patent number searching  
NEWS 26 AUG 27 CAS definition of basic patents expanded to ensure  
comprehensive access to substance and sequence  
information

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,



```

chain nodes :
8 9
ring nodes :
1 2 3 4 5 6 7 10 11 12 13
chain bonds :
1-8 1-9
ring bonds :
1-2 1-7 2-3 3-4 4-5 4-10 4-13 5-6 6-7 10-11 11-12 12-13
exact/norm bonds :
1-2 1-7 2-3 3-4 4-5 4-10 4-13 5-6 6-7 10-11 11-12 12-13
exact bonds :
1-8 1-9

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS 10:Atom
11:Atom 12:Atom 13:Atom

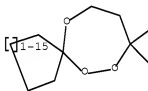
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L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s sss sam l1

SAMPLE SEARCH INITIATED 09:42:53 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 24 TO ITERATE

100.0% PROCESSED 24 ITERATIONS

3 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 187 TO 773

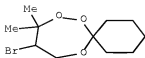
PROJECTED ANSWERS: 3 TO 163

L2 3 SEA SSS SAM L1

=> d scan

L2 3 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN

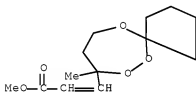
IN 7,8,12-Trioxaspiro[5.6]dodecane, 10-bromo-9,9-dimethyl-  
MF C11 H19 Br O3



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

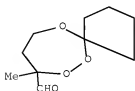
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):3

L2 3 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 2-Propenoic acid, 3-(8-methyl-6,7,11-trioxaspiro[4.6]undec-8-yl)-, methyl  
ester  
MF C13 H20 O5



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L2 3 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 6,7,11-Trioxaspiro[4.6]undecane-8-carboxaldehyde, 8-methyl-  
MF C10 H16 O4



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

ALL ANSWERS HAVE BEEN SCANNED

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FULL SCREEN SEARCH COMPLETED - 399 TO ITERATE

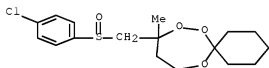
100.0% PROCESSED 399 ITERATIONS  
SEARCH TIME: 00.00.01

34 ANSWERS

L3 34 SEA SSS FUL L1

=> d scan

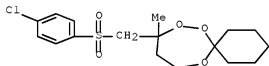
L3 34 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 7,8,12-Trioxaspiro[5.6]dodecane, 9-[[4-(4-chlorophenyl)sulfinyl]methyl]-9-methyl-  
MF C17 H23 Cl O4 S



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

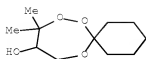
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

L3 34 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 7,8,12-Trioxaspiro[5.6]dodecane, 9-[[4-(4-chlorophenyl)sulfonyl]methyl]-9-methyl-  
MF C17 H23 Cl O5 S



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

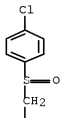
L3 34 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 7,8,12-Trioxaspiro[5.6]dodecan-10-ol, 9,9-dimethyl-  
MF C11 H20 O4



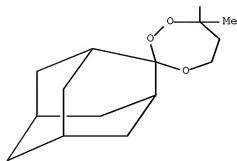
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L3 34 ANSWERS REGISTRY COPYRIGHT 2008 ACS on SIN  
 IN Spiro[tricyclo[3.3.1.1<sup>3,7</sup>]decane-2,3'-[1,2,4]trioxepane],  
 7'-[[ (4-chlorophenyl)sulfinyl]methyl]-7'-methyl-  
 MF C21 H27 Cl O4 S

PAGE 1-A



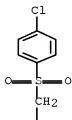
PAGE 2-A



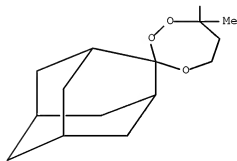
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L3 34 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN Spiro[tricyclo[3.3.1.1<sup>3</sup>,7]decane-2,3'-[1,2,4]trioxepane],  
7'-[[(4-chlorophenyl)sulfonyl]methyl]-7'-methyl-  
MF C21 H27 Cl O5 S

PAGE 1-A

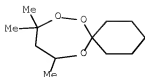


PAGE 2-A



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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IN 7,8,12-Trioxaspiro[5.6]dodecane, 9,9,11-trimethyl-  
MF C12 H22 O3

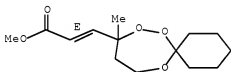


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 34 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN 2-Propenoic acid, 3-(9-methyl-7,8,12-trioxaspiro[5.6]dodec-9-yl)-, methyl  
 ester, (2E)-  
 MF C14 H22 O5

Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> save temp l3 meij10564554/a  
 ANSWER SET L3 HAS BEEN SAVED AS 'MEIJ10564554/A'

=> fil caplu  
 COST IN U.S. DOLLARS  
 FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
180.66	180.87

FILE 'CAPLUS' ENTERED AT 09:46:22 ON 15 SEP 2008  
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FILE COVERS 1907 - 15 Sep 2008 VOL 149 ISS 12  
FILE LAST UPDATED: 14 Sep 2008 (20080914/ED)

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```
=> s l3 (L) ract/rl
      9 L3
      3157313 RACT/RL
L4      2 L3 (L) RACT/RL
```

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=> s l3
L5      9 L3
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=> s l3/rrt
'RRT' IS NOT A VALID CROSSOVER QUALIFIER FOR L3
Answer sets created in a different file may be field qualified with a
limited set of qualifiers. Enter HELP CROSSOVER at an arrow prompt
(=>) for specific information.
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COST IN U.S. DOLLARS                               SINCE FILE      TOTAL
                                                ENTRY      SESSION
FULL ESTIMATED COST                               3.08      183.95
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FILE CONTENT:1840 - 13 Sep 2008 VOL 149 ISS 12

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```
*****
*
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=> s l3/rrt

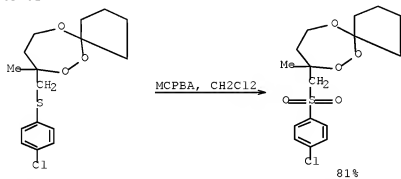
L6 3 L3/RRT

=> d sca

L6 3 ANSWERS CASREACT COPYRIGHT 2008 ACS on STN

TI Synthesis of 1,2,4-trioxepanes via application of thiol-olefin  
Co-oxygenation methodology

RX(4) OF 52



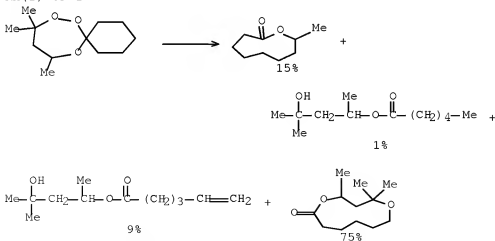
NOTE: product depends on equiv. of m-CPEA, safety

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 3 ANSWERS CASREACT COPYRIGHT 2008 ACS on STN

TI 1,2,4,-Trioxepanes as precursors for lactones

RX(1) OF 2



NOTE: thermal, Shellsol D-60 was used

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> fil caplu

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	31.03	214.98

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FILE COVERS 1907 - 15 Sep 2008 VOL 149 ISS 12  
FILE LAST UPDATED: 14 Sep 2008 (20080914/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=> s l4 or l5 or l6  
                  3 L6  
L7                  9 L4 OR L5 OR L6

=> d ibib abs hitst 1-9  
'HITST' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

ABS ----- GI and AB  
ALL ----- BIB, AB, IND, RE  
APPS ----- AI, PRAI  
BIB ----- AN, plus Bibliographic Data and PI table (default)  
CAN ----- List of CA abstract numbers without answer numbers  
CBIB ----- AN, plus Compressed Bibliographic Data  
CLASS ----- IPC, NCL, ECLA, FTERM  
DALL ----- ALL, delimited (end of each field identified)  
DMAX ----- MAX, delimited for post-processing  
FAM ----- AN, PI and PRAI in table, plus Patent Family data  
FBIB ----- AN, BIB, plus Patent FAM  
IND ----- Indexing data  
IPC ----- International Patent Classifications  
MAX ----- ALL, plus Patent FAM, RE  
PATS ----- PI, SO

SAM ----- CC, SX, TI, ST, IT  
 SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;  
 SCAN must be entered on the same line as the DISPLAY,  
 e.g., D SCAN or DISPLAY SCAN)  
 STD ----- BIB, CLASS  
 IABS ----- ABS, indented with text labels  
 IALL ----- ALL, indented with text labels  
 IBIB ----- BIB, indented with text labels  
 IMAX ----- MAX, indented with text labels  
 ISTD ----- STD, indented with text labels  
 OBIB ----- AN, plus Bibliographic Data (original)  
 OIBIB ----- OBIB, indented with text labels  
 SBIB ----- BIB, no citations  
 SIBIB ----- IBIB, no citations  
 HIT ----- Fields containing hit terms  
 HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)  
 containing hit terms  
 HITRN ----- HIT RN and its text modification  
 HITSTR ----- HIT RN, its text modification, its CA index name, and  
 its structure diagram  
 HITSEQ ----- HIT RN, its text modification, its CA index name, its  
 structure diagram, plus NTE and SEQ fields  
 FHITSTR ----- First HIT RN, its text modification, its CA index name, and  
 its structure diagram  
 FHITSEQ ----- First HIT RN, its text modification, its CA index name, its  
 structure diagram, plus NTE and SEQ fields  
 KWIC ----- Hit term plus 20 words on either side  
 OCC ----- Number of occurrence of hit term and field in which it occurs

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of formats include: TI; TI,AU; BIB,ST; TI,IND; TI,SO. You may specify the format fields in any order and the information will be displayed in the same order as the format specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR, FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC to view a specified Accession Number.  
 ENTER DISPLAY FORMAT (BIB):end

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L7 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:1421759 CAPLUS Full-text  
 DOCUMENT NUMBER: 148:55109  
 TITLE: Preparation of dual molecules containing a peroxide derivative, particularly 1,2,4-trioxane/trioxepane/trioxecane, linked to a quinoline moiety as antimalarial agents  
 INVENTOR(S): Cosledan, Frederic; Meunier, Bernard; Pellet, Alain  
 PATENT ASSIGNEE(S): Sanofi Aventis, Fr.; Palumed; Centre National de la Recherche Scientifique (C.N.R.S.)  
 SOURCE: Fr. Demande, 53pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent

LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2902100	A1	20071214	FR 2006-5235	20060613
WO 2007144487	A2	20071221	WO 2007-FR946	20070608
WO 2007144487	A3	20080207		

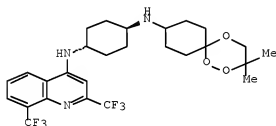
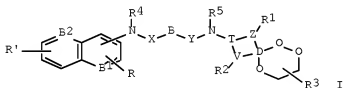
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: FR 2006-5235 A 20060613

OTHER SOURCE(S): CASREACT 148:55109; MARPAT 148:55109

GI



II

AB Trioxanes of formula I and related derivs. [R, R' = independently H, halo, OH, cycloalkyl, NO<sub>2</sub>, NH<sub>2</sub>, etc.; B1 = N and B2 = CH: or B1 = CH: and B2 = N; R<sub>4</sub> = H, alkyl, cycloalkyl; B = (un)substituted cycloalkyl or 2 cycloalkyl groups containing C3-6 rings connected by a bond, CH<sub>2</sub>, or CH<sub>2</sub>-CH<sub>2</sub>; X = (CH<sub>2</sub>)<sub>m</sub>; Y = (CH<sub>2</sub>)<sub>n</sub>; m, n = independently 0-2; R<sub>5</sub> = H, (cyclo)alkyl, CO-(cyclo)alkyl, COO-(cyclo)alkyl; Z, V = independently alkylene with Z+V+D = cycloalkyl, polycyclyl; one of Z or V = a bond between the T and D carbon atoms with the proviso that Z and V cannot simultaneously be a bond; R<sub>1</sub>, R<sub>2</sub> = independently H, a functional group capable of increasing solubility in water; D = junction carbon; each R<sub>3</sub> = independently H, halo, OH, CF<sub>3</sub>, aryl, cycloalkyl, bi- or tricycyl, etc.; or R<sub>3</sub>CCR<sub>3</sub> = (un)substituted C<sub>5</sub>-C<sub>6</sub> cycloalkyl; or R<sub>3</sub>CR<sub>3</sub> C<sub>3</sub>-C<sub>7</sub> cycloalkyl or C<sub>4</sub>-C<sub>18</sub> bi- or tricycyl, and their acid addition salts, hydrates and solvates, and their stereoisomers were prepared as antimalarial agents. Thus, amination of 4-chloro-2,8-bis(trifluoromethyl)quinoline with

trans-1,4- diaminocyclohexane, and reductive amination of 3,3-dimethyl-1,2,5-trioxaspiro[5.5]undecan-9-one (preparation given) with the primary amine intermediate gave spiro-1,2,4-trioxane II. I were tested in vitro for antimalarial activity against 2 strains of *P. falciparum*, i.e. FcB1-Columbia and FcM29-CAMeroon and displayed IC50 values < 1  $\mu$ M. I displayed a high metabolic stability in the human hepatic microsomes.

IT 960114-71-0P

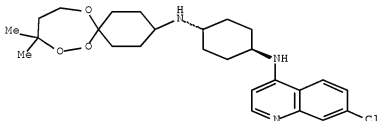
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of quinolinyl trioxanes, trioxepanes and trioxecanes as antimalarial agents)

RN 960114-71-0 CAPLUS

CN 1,4-Cyclohexanediamine, N1-(7-chloro-4-quinolinyl)-N4-(9,9-dimethyl-7,8,12-trioxaspiro[5.6]dodec-3-yl)-, trans- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1190098 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 146:142841

TITLE: Synthesis of 1,2,4-trioxepanes via application of thiol-olefin Co-oxygenation methodology

AUTHOR(S): Amewu, Richard; Stachulski, Andrew V.; Berry, Neil G.; Ward, Stephen A.; Davies, Jill; Labat, Gael; Rossignol, Jean-Francois; O'Neill, Paul M.

CORPORATE SOURCE: Department of Chemistry, University of Liverpool, Liverpool, L69 3BX, UK

SOURCE: Bioorganic & Medicinal Chemistry Letters (2006), 16(23), 6124-6130

CODEN: BMCLE8; ISSN: 0960-894X

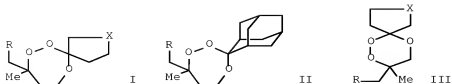
PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

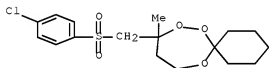
LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:142841

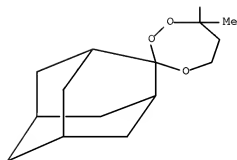
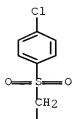
GI



- AB Thiol-olefin co-oxygenation (TOCO) of substituted allylic alcs. generated  $\beta$ -hydroxy peroxides that can be condensed in situ with various ketones, to afford a series of functionalized 1,2,4-trioxepanes in good yields. Manipulation of the phenylsulfenyl group in I [R = SC<sub>6</sub>H<sub>4</sub>-4-Cl, X = (CH<sub>2</sub>)<sub>n</sub>, n = 1, 2] and II (R = SC<sub>6</sub>H<sub>4</sub>-4-Cl) allowed for convenient modification to the spiro-trioxepane substituents. Surprisingly, and in contrast to the 1,2,4-trioxanes examined, the 1,2,4-trioxepanes were inactive as antimalarials up to 1000 nM, an observation based on the inherent stability of these systems to ferrous mediated degradation FMO calcs. clearly show that the  $\sigma^*$  orbital of the peroxide moiety of 1,2,4-trioxane derivs. III [R = SC<sub>6</sub>H<sub>4</sub>-4-Cl, SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-4-Cl, X = (CH<sub>2</sub>)<sub>2</sub>] are lower in energy and more accessible to attack by Fe(II) compared to their trioxepane analogs I [R = SC<sub>6</sub>H<sub>4</sub>-4-Cl, SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-4-Cl, X = (CH<sub>2</sub>)<sub>2</sub>].
- IT 869661-34-7P 869661-35-8P 918901-86-7P  
918901-92-5P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(synthesis and antimalarial activity of 1,2,4-trioxepane artemisinin analogs via application of thiol-olefin co-oxygenation methodol.)
- RN 869661-34-7 CAPLUS
- CN 7,8,12-Trioxaspiro[5.6]dodecane, 9-[[[4-chlorophenyl)sulfonyl)methyl]-9-methyl- (CA INDEX NAME)

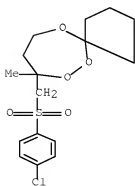


- RN 869661-35-8 CAPLUS
- CN Spiro[tricyclo[3.3.1.1.3,7]decane-2,3'-[1,2,4]trioxepane], 7'-[[[4-chlorophenyl)sulfonyl)methyl]-7'-methyl- (CA INDEX NAME)



RN 918901-86-7 CAPLUS

CN 6,7,11-Trioxaspiro[4.6]undecane, 8-[[[(4-chlorophenyl)sulfonyl]methyl]-8-methyl- (CA INDEX NAME)

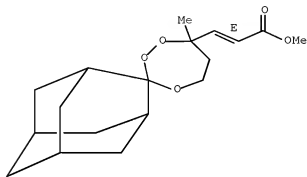




RN 918901-92-5 CAPLUS

CN 2-Propenoic acid, 3-(7'-methylspiro[tricyclo[3.3.1.1<sup>3,7</sup>]decane-2,3'-[1,2,4]trioxepan]-7'-yl)-, methyl ester, (2E)- (CA INDEX NAME)

Double bond geometry as shown.



IT 869661-31-4P 869661-32-5P 869661-33-6P

918901-87-8P 918901-88-9P 918901-94-7P

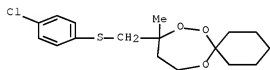
918901-95-8P 918902-01-9P 918902-02-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
RACT (Reactant or reagent)

(synthesis and antimalarial activity of 1,2,4-trioxepane artemisinin  
analogs via application of thiol-olefin co-oxygenation methodol.)

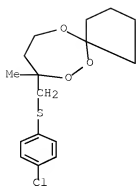
RN 869661-31-4 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 9-[[4-(4-chlorophenyl)thio]methyl]-9-methyl-  
(CA INDEX NAME)



RN 869661-32-5 CAPLUS

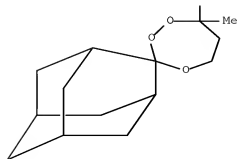
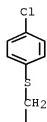
CN 6,7,11-Trioxaspiro[4.6]undecane, 8-[[4-(4-chlorophenyl)thio]methyl]-8-methyl-  
(CA INDEX NAME)



RN 869661-33-6 CAPLUS

CN Spiro[tricyclo[3.3.1.1.3]decane-2,3'-[1,2,4]trioxepane],  
7'-[[(4-chlorophenyl)thio]methyl]-7'-methyl- (CA INDEX NAME)

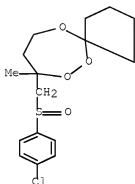
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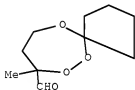
RN 918901-87-8 CAPLUS

CN 6,7,11-Trioxaspiro[4.6]undecane, 8-[[ (4-chlorophenyl)sulfinyl]methyl]-8-methyl- (CA INDEX NAME)



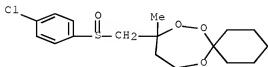
RN 918901-88-9 CAPLUS

CN 6,7,11-Trioxaspiro[4.6]undecane-8-carboxaldehyde, 8-methyl- (CA INDEX NAME)



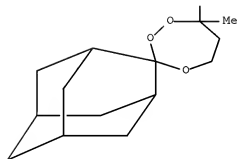
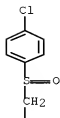
RN 918901-94-7 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 9-[[ (4-chlorophenyl)sulfinyl]methyl]-9-methyl- (CA INDEX NAME)

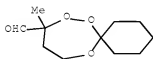


RN 918901-95-8 CAPLUS

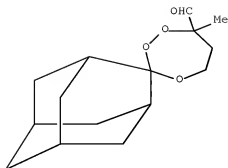
CN Spiro[tricyclo[3.3.1.1<sup>3,7</sup>]decane-2,3'-[1,2,4]trioxepane], 7'-[[ (4-chlorophenyl)sulfinyl]methyl]-7'-methyl- (CA INDEX NAME)



RN 918902-01-9 CAPLUS  
 CN 7,8,12-Trioxaspiro[5.6]dodecane-9-carboxaldehyde, 9-methyl- (CA INDEX NAME)



RN 918902-02-0 CAPLUS  
 CN Spiro[tricyclo[3.3.1.1.3,7]decane-2,3'-(1,2,4)trioxepane]-7'-carboxaldehyde, 7'-methyl- (CA INDEX NAME)



IT 918901-89-0P 918901-90-3P 918901-96-9P

918901-97-0P 918901-98-1P

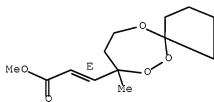
RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis and antimalarial activity of 1,2,4-trioxepane artemisinin  
analogs via application of thiol-olefin co-oxygenation methodol.)

RN 918901-89-0 CAPLUS

CN 2-Propenoic acid, 3-(8-methyl-6,7,11-trioxaspiro[4.6]undec-8-yl)-, methyl  
ester, (2E)- (CA INDEX NAME)

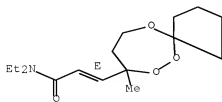
Double bond geometry as shown.



RN 918901-90-3 CAPLUS

CN 2-Propenamide, N,N-diethyl-3-(8-methyl-6,7,11-trioxaspiro[4.6]undec-8-yl)-  
, (2E)- (CA INDEX NAME)

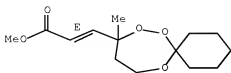
Double bond geometry as shown.



RN 918901-96-9 CAPLUS

CN 2-Propenoic acid, 3-(9-methyl-7,8,12-trioxaspiro[5.6]dodec-9-yl)-, methyl  
ester, (2E)- (CA INDEX NAME)

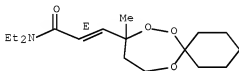
Double bond geometry as shown.



RN 918901-97-0 CAPLUS

CN 2-Propenamide, N,N-diethyl-3-(9-methyl-7,8,12-trioxaspiro[5.6]dodec-9-yl)-, (2E)- (CA INDEX NAME)

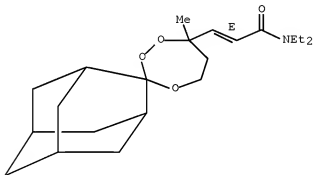
Double bond geometry as shown.



RN 918901-98-1 CAPLUS

CN 2-Propenamide, N,N-diethyl-3-(7'-methylspiro[tricyclo[3.3.1.1^3,7]decane-2,3'-[1,2,4]trioxepan]-7'-yl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT:

24

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1223637 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 143:477995

TITLE: 1,2,4-Trioxanes and 1,2,4-trioxepanes useful as antimalarial and anticancer agents, and their pharmaceutical compositions, use, and preparation via the thiol-olefin co-oxygenation (TOCO) reaction

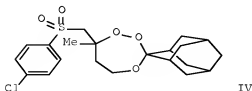
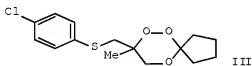
INVENTOR(S): O'Neill, Paul M.; Amewu, Richard; Mukhtar, Amira;  
Ward, Stephen A.  
PATENT ASSIGNEE(S): UK  
SOURCE: U.S. Pat. Appl. Publ., 19 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050256184	A1	20051117	US 2005-103076	20050411
WO 2006016903	A2	20060216	WO 2005-US12236	20050412
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WO 2006016903	A8	20060720		

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-561589P P 20040412  
US 2005-103076 A 20050411  
OTHER SOURCE(S): CASREACT 143:477995; MARPAT 143:477995  
GI



AB Novel substituted 1,2,4-trioxanes and 1,2,4-trioxepanes useful as anti-malarial and/or (no data) anticancer agents, and an improved method for their preparation, are disclosed. The method preferably involves a thiol-olefin co-

oxygenation (TOCO) reaction between an aromatic thiol, an allylic or homoallylic alc., O<sub>2</sub>, and a ketone. The trioxanes and trioxepanes are represented by structures I and II, resp. [R<sub>1</sub> = CH<sub>2</sub>OH, CHO, alkenyl, arylsulfonylethyl, methylsulfinyl, methylpiperazinyl; R<sub>2</sub> = aryl, alkyl; R<sub>3</sub> = alkyl, cycloalkyl; R<sub>4</sub> = alkyl, cycloalkyl; or R<sub>3</sub>R<sub>4</sub> = atoms to form cycloalkyl ring; including enantiomers, salts, and hydrates]. For instance, 2-methyl-2-propen-1-ol and AIBN in MeCN were irradiated with UV light under pure O<sub>2</sub> with simultaneous addition of 4-ClC<sub>6</sub>H<sub>4</sub>SH, followed by stirring to completion. The intermediate hydroperoxy alc. was treated in situ with cyclopentanone and tosic acid catalyst at -10° to give after workup 40% invention compound III. Oxidation of III with mCPBA gave the corresponding sulfone, also an invention compound, in 96% yield. Analogous reactions starting from homoallylic alcs. gave trioxepanes such as IV. Claimed synthetic methods involve the above-illustrated thiol-olefin co-oxygenation (TOCO) reaction, as well as auxiliary reactions, including the Pummerer reaction, Wittig reaction, condensations, nucleophilic substitutions, and reductive aminations. All of the compds. displayed moderate antimalarial activity, and one or two compds. displayed potent activity, approaching that of artemisinin, against chloroquine-resistant K1 Plasmodium falciparum. X-ray crystal structures were obtained for both III and the dechloro trioxane analog of IV.

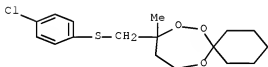
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of trioxanes and trioxepanes as antimalarial and anticancer agents)

RN 869661-31-4 CAPLUS

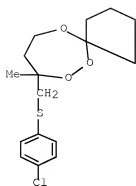
CN 7,8,12-Trioxaspiro[5.6]dodecane, 9-[[[(4-chlorophenyl)thio]methyl]-9-methyl- (CA INDEX NAME)



RN 869661-32-5 CAPLUS

CN 6,7,11-Trioxaspiro[4.6]undecane, 8-[[[(4-chlorophenyl)thio]methyl]-8-methyl- (CA INDEX NAME)

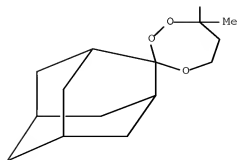
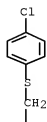




RN 869661-33-6 CAPLUS

CN Spiro[tricyclo[3.3.1.1.3]decane-2,3'-[1,2,4]trioxepane],  
7'-[[4-chlorophenylthio]methyl]-7'-methyl- (CA INDEX NAME)

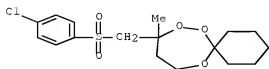
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PAGE 2-A

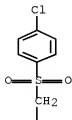
RN 869661-34-7 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 9-[[ (4-chlorophenyl)sulfonyl]methyl]-9-methyl- (CA INDEX NAME)

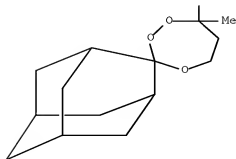


RN 869661-35-8 CAPLUS

CN Spiro[tricyclo[3.3.1.1<sup>3,7</sup>]decane-2,3'-[1,2,4]trioxepane], 7'-[[ (4-chlorophenyl)sulfonyl]methyl]-7'-methyl- (CA INDEX NAME)

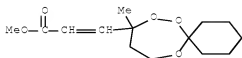


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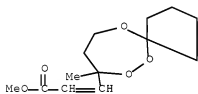


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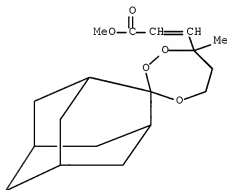
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 CN 2-Propenoic acid, 3-(9-methyl-7,8,12-trioxaspiro[5.6]dodec-9-yl)-, methyl ester (CA INDEX NAME)



RN 869661-37-0 CAPLUS  
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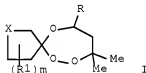
RN 869661-38-1 CAPLUS  
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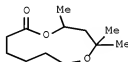
L7 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:141049 CAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 142:240473  
 TITLE: 1,2,4,-Trioxepanes as precursors for lactones  
 INVENTOR(S): Meijer, John; Van den Berg, Rolf Hendrik

PATENT ASSIGNEE(S): Akzo Nobel N. V., Neth.  
 SOURCE: PCT Int. Appl., 18 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014569	A1	20050217	WO 2004-EP7839	20040712
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EP 1646618	A1	20060419	EP 2004-763237	20040712
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
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IN 2006CN00182	A	20070817	IN 2006-CN182	20060113
US 20060167281	A1	20060727	US 2006-564554	20060202
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			US 2003-499415P	P 20030902
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GI				



I



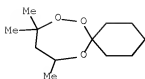
II

AB A novel process was disclosed for the preparation of cyclic ether lactones by decomposition of corresponding 1,2,4-trioxepanes, such as I [R = H, Me; R1 = H, carboxy, etc.; X = (CH2)n, n = 1-14]. Thus, macrocyclic lactone ether II was prepared as the major product of heating 1,2,4-trioxepane I [R = Me, R1 = H, X = (CH2)2, m = 0] in a reactor charged with Shellisol D-60.

IT 215877-52-4 844665-36-7 844665-37-8  
 844665-38-9 844665-39-0  
 RL: RCT (Reactant); PACT (Reactant or reagent)  
 (process for the preparation of macrocyclic ether lactones via thermal decomposition of spirocyclic 1,2,4,-trioxepanes)

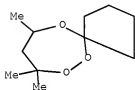
RN 215877-52-4 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 9,9,11-trimethyl- (CA INDEX NAME)



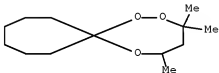
RN 844665-36-7 CAPLUS

CN 6,7,11-Trioxaspiro[4.6]undecane, 8,8,10-trimethyl- (CA INDEX NAME)



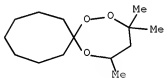
RN 844665-37-8 CAPLUS

CN 1,2,6-Trioxaspiro[6.6]tridecane, 3,3,5-trimethyl- (CA INDEX NAME)



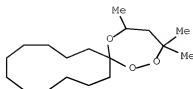
RN 844665-38-9 CAPLUS

CN 1,2,6-Trioxaspiro[6.7]tetradecane, 3,3,5-trimethyl- (CA INDEX NAME)



RN 844665-39-0 CAPLUS

CN 1,2,6-Trioxaspiro[6.11]octadecane, 3,3,5-trimethyl- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:737076 CAPLUS Full-text  
 DOCUMENT NUMBER: 141:379904  
 TITLE: 1,2,4-Trioxepanes: Redox-cleavable protection for carbonyl groups  
 AUTHOR(S): Ahmed, Aqel; Dussault, Patrick H.  
 CORPORATE SOURCE: Department of Chemistry, University of Nebraska-Lincoln, Lincoln, NE, 68588-0304, USA  
 SOURCE: Organic Letters (2004), 6(20), 3609-3611  
 CODEN: ORLEF7; ISSN: 1523-7060  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 141:379904

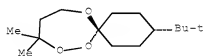
AB 1,2,4-Trioxepanes, readily prepared and easily handled derivs. of aldehydes and ketones, are stable to a variety of synthetic conditions and yet easily deblocked with Zn/HOAc or Mg/MeOH to regenerate the parent carbonyl. Trioxepanes may provide an alternative to 1,3-dithianes for acid-stable protection of carbonyl groups.

IT 784191-69-1P 784191-70-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (Co-catalyzed cyclization of aldehydes and ketones with (triethylsilylperoxy)methylbutanol to give trioxepanes useful as acid-stable, redox-cleavable carbonyl protecting groups)

RN 784191-69-1 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 3-(1,1-dimethylethyl)-9,9-dimethyl-, (3 $\alpha$ ,6 $\alpha$ )- (CA INDEX NAME)

Relative stereochemistry.



RN 784191-70-4 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 3-(1,1-dimethylethyl)-9,9-dimethyl-, (3 $\alpha$ ,6 $\beta$ )- (CA INDEX NAME)

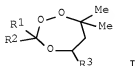
Relative stereochemistry.



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:142767 CAPLUS Full-text  
 DOCUMENT NUMBER: 136:200613  
 TITLE: Use of trioxepanes in the process to modify (co)polymers  
 INVENTOR(S): Gerritsen, Rene; Hogt, Andreas Herman; Meijer, John  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.  
 SOURCE: PCT Int. Appl., 25 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002014383	A1	20020221	WO 2001-EP9266	20010808
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2002012134 A 20020225 AU 2002-12134 20010808 US 2002040108 A1 20020404 US 2001-930402 20010815 PRIORITY APPLN. INFO.: US 2000-225314P P 20000815 EP 2000-203888 A 20001108 WO 2001-EP9266 W 20010808				
OTHER SOURCE(S):		MARPAT 136:200613		
GI				



AB Invention relates to a polymer modification process wherein the rheol. of at least one (co)polymers is modified by contacting the (co)polymer with at least one decomposing peroxide of the formula (I), wherein R1-3 = independently

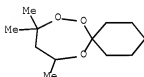
selected from substituted or unsubstituted hydrocarbonyl groups. The modification process can be useful to obtain a modified resin or to enhance the flame retardancy of (expanded) styrenic resins. Thus, peroxide I, wherein R1-3 = Me dissolved in dichloromethane (5% weight solution) and Borealis HC 00A1B1 (PP) were mixed in amount such that 0.05% weight active oxygen was introduced, 0.1% weight based on PP Irganox 1010 stabilizer was added, and extruded to give a modified resin with MFR (ASTM D 1238) 82 g/10 min.

IT 215877-52-4

RL: MOA (Modifier or additive use); USES (Uses)  
(peroxide; use of trioxepanes in process to modify (co)polymers)

RN 215877-52-4 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 9,9,11-trimethyl- (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:745028 CAPLUS Full-text

DOCUMENT NUMBER: 130:4473

TITLE: Crosslinking thermoplastic polymers using cyclic peroxide and a promoter

INVENTOR(S): Bock, Lawrence A.; Lewis, Roger N.

PATENT ASSIGNEE(S): Witco Corp., USA

SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9850354	A1	19981112	WO 1998-US8907	19980501
W: KR				
RM: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5856412	A	19990105	US 1997-850334	19970502
EP 909269	A1	19990421	EP 1998-920129	19980501
EP 909269	B1	20050209		
R: BE, DE, ES, FR, GB, IT, NL, SE				
JP 11106521	A	19990420	JP 1998-123268	19980506
JP 4098879	B2	20080611		
KR 2000022442	A	20000425	KR 1998-710875	19981230
PRIORITY APPLN. INFO.:			US 1997-850334	A 19970502
			WO 1998-US8907	W 19980501

OTHER SOURCE(S): MARPAT 130:4473

AB A crosslinking system includes a 1,2,4-trioxacycloheptane and a crosslink-promoting polyfunctional ethylenically unsatd. compound Preferred polymers for crosslinking, include ethylene homopolymers and copolymers. Thus, HDPE was cured in the presence of triallyl cyanurate and 1.1% 9,9,11-trimethyl-7,8,12-



trioxaspiro[5.6]dodecane (preparation given) at 200°, 30 min showing crosslink degree 44.1% (based on weight of product).

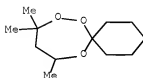
IT 215877-52-4P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
USES (Uses)

(crosslinking catalyst; crosslinking thermoplastic polymers using  
cyclic peroxide and a unsatd. compound promoter)

RN 215877-52-4 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 9,9,11-trimethyl- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:790896 CAPLUS Full-text

DOCUMENT NUMBER: 128:75374

ORIGINAL REFERENCE NO.: 128:14743a,14746a

TITLE: New methods for the synthesis of oxy-functionalized  
1,2,4-trioxanes and 1,2,4-trioxepanes from unsaturated  
hydroperoxy acetals

AUTHOR(S): Ushigoe, Yoshihiro; Masuyama, Araki; Nojima, Masatomo;  
McCullough, Kevin J.

CORPORATE SOURCE: Department of Materials Chemistry, Faculty of  
Engineering, Osaka University, Suita, 565, Japan

SOURCE: Tetrahedron Letters (1997), 38(50), 8753-8756

CODEN: TELEAY; ISSN: 0040-4039

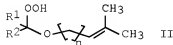
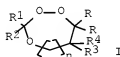
PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 128:75374

GI

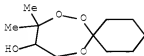


AB Title compds. I (R = Me, H, CH<sub>2</sub>OH, C(CH<sub>2</sub>)<sub>2</sub>OH; R<sub>1</sub> = Ph; R<sub>2</sub> = H; R<sub>1</sub>R<sub>2</sub> = (CH<sub>2</sub>)<sub>5</sub>; R<sub>3</sub> = H, OH; R<sub>4</sub> = H, Me; n = 0, 1, 2) were prepared from II by autoxidn. or from III, prepared from II, by acid-catalyzed cyclization.

IT 200639-92-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis of oxy-functionalized 1,2,4-trioxanes and 1,2,4-trioxepanes from unsatd. hydroperoxy acetals)

RN 200639-92-5 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecan-10-ol, 9,9-dimethyl- (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:81259 CAPLUS Full-text

DOCUMENT NUMBER: 126:199546

ORIGINAL REFERENCE NO.: 126:38579a

TITLE: Synthesis of 1,2,4-trioxanes and 1,2,4-trioxepanes by N-halogenosuccinimide-mediated cyclizations of unsaturated hydroperoxyacetals

AUTHOR(S): Ushigoe, Yoshihiro; Kano, Yoshihiro; Nojima, Masatomo  
 CORPORATE SOURCE: Fac. Eng., Osaka Univ., Osaka, 565, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1997), (1), 5-10  
 CODEN: JCPRB4; ISSN: 0300-922X

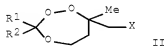
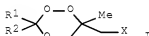
PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 126:199546

GI



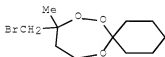
AB Ozonolyses of vinyl ethers R<sub>1</sub>R<sub>2</sub>C:CHOMe [R<sub>1</sub> = Ph, C<sub>7</sub>H<sub>15</sub>, R<sub>2</sub> = H; R<sub>1</sub>R<sub>2</sub> = (CH<sub>2</sub>)<sub>5</sub>] in CH<sub>2</sub>Cl<sub>2</sub> in the presence of allylic and homoallylic alcs. R<sub>4</sub>2C:CR<sub>3</sub>CH<sub>2</sub>OH (R<sub>3</sub> = Me, H, R<sub>4</sub> = H, Me) and H<sub>2</sub>C:CMech<sub>2</sub>CH<sub>2</sub>OH give in each case the corresponding unsatd. hydroperoxy acetals R<sub>4</sub>2C:CR<sub>3</sub>CH<sub>2</sub>OCRI<sub>2</sub>OOH and H<sub>2</sub>C:CMech<sub>2</sub>CH<sub>2</sub>OCRI<sub>2</sub>OOH, derived from capture of the carbonyl oxides by the unsatd. alcs. N-Halosuccinimide-mediated cyclizations of the hydroperoxides give the corresponding 1,2,4-trioxanes, e.g., I and/or 1,2,4-trioxepanes, e.g., II (X = Br, iodo), depending on the structure of the hydroperoxides and the identity of the N-halosuccinimides.

IT 187884-37-3P 187884-38-4P 187884-46-4P  
187884-48-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of trioxanes and trioxepanes by cyclization of unsatd.  
hydroperoxyacetals)

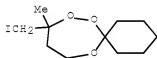
RN 187884-37-3 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 9-(bromomethyl)-9-methyl- (CA INDEX  
NAME)



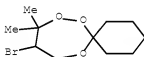
RN 187884-38-4 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 9-(iodomethyl)-9-methyl- (CA INDEX NAME)



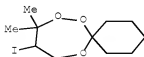
RN 187884-46-4 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 10-bromo-9,9-dimethyl- (CA INDEX NAME)



RN 187884-48-6 CAPLUS

CN 7,8,12-Trioxaspiro[5.6]dodecane, 10-iodo-9,9-dimethyl- (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> logoff h

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	52.41	267.39
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	-7.20	-7.20

SESSION WILL BE HELD FOR 120 MINUTES  
 STN INTERNATIONAL SESSION SUSPENDED AT 09:53:55 ON 15 SEP 2008  
 Connecting via Winsock to STN

Welcome to STN International! Enter x:X

LOGINID:SSPTANSC1625

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
 SESSION RESUMED IN FILE 'CAPLUS' AT 11:19:14 ON 15 SEP 2008  
 FILE 'CAPLUS' ENTERED AT 11:19:14 ON 15 SEP 2008  
 COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	52.89	267.87
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	-7.20	-7.20

STN INTERNATIONAL LOGOFF AT 11:19:23 ON 15 SEP 2008